

SMALL CREW THEORY

Larger crews don't always translate into improved productivity. Determining how many is enough is essential into maximizing efficiency and profit.

by Philip D. Christian III

The size of the most productive landscape maintenance crew has been discussed, argued, and subjected to trial-and-error testing. Since landscape maintenance emerged as a separate or specialty business, the issue has become even more important.

By adding mobile crews, we discovered the importance of correct crew sizing. In today's competitive labor environment the need for higher productivity and increased quality suggest a "new look" at sizing landscape maintenance crews.

Most landscapers have worked with one-person crews. Remember how much you could accomplish in one long day? Remember the first really good helper, the one who read your mind and did what you wanted him to do? You increased your production when you added the helper, but you did not double it.

One-man crews?

Landscape maintenance is a combination or series of solo, one-person tasks. Unlike landscape installation or construction, maintenance crews do not handle heavy or awkward materials requiring more than one person to improve efficiency.

This lack of synergistic benefit on a per-task basis encourages us to think of our crews as combinations of one-person crews.

Loading heavy sheets of 4x8-foot plywood is a good example. One person can load 30 sheets per hour by himself, but a crew of two can load 75



Efficiency is not always increased as field crews grow in size. It is sometimes better to divide large crews into smaller two- and three-man crews and teach them to function as separate work units.

sheets an hour. The difference is called synergy, which means that the whole is greater than the sum of its parts. By working together, the plywood-loading crew can increase the output per person from 30 sheets an hour to 37½ sheets per hour.

Creating synergy

In landscape maintenance work we do not perform activities that offer opportunity for positive synergistic effect. In fact, we have the opposite. When we increase crew size we lose efficiency.

For example, send one person to a

after. It makes them feel needed.

Is bigger better?

Crew members also like large crews. It is like being on a team. You don't feel the pressure to produce. They have more freedom to do the things they enjoy as long as they keep busy.

Property owners/managers love big crews. They are taught in property management school the more people running around on their property the better! They sometimes demand contractors get more people on the job and "get it done!"

Crews working a specific route are

and then "knock it out." Once back on schedule the owner/manager will accept, and become accustomed to, fewer people on the job weekly.

The myth that large crews provide better use of supervision is a throwback to factory or assembly-line thinking that really does not apply to mobile crews. The notion that one strong supervisor can supervise five people as easily as two and still keep up his production responsibility does not apply to mobile crews either.

Some supervisors try to "keep the men together." Supposedly they are easier to supervise; but in reality, this herd mentality further reduces productivity. Large crew supervisors must make a choice to reduce or eliminate productivity in order to keep five men up to speed, or allow their productivity to drop to maintain individual productivity.

Larger crews may finish faster, but less efficiently.

job that takes four hours lapsed time. Now send two people with the same equipment the same distance to produce the same work, and it takes 2.4 hours in lapsed time but 4.8 hours in man-hour time. The two-person crew did it much more quickly—2.4 hours compared to four hours—but more time was spent in man-hours and therefore it became less efficient.

In some cases mowing the property in a little over two hours rather than a half day could be a worthwhile trade-off for the inefficiency. The important issue is to recognize that the more people we send to the job, the faster it is completed, but it is also less efficient in total man-hours spent.

What's the cost?

Your cost is proportionate to man-hours spent, not lapsed crew time. The small two- or three-person crew will not effectively produce all size properties.

One drawback of small crews on large properties is that they cannot complete the work fast enough. They spend too much time on-site. One answer to that problem is increasing the crew size. All that is needed is a crew-cab truck. You will be able to send as many as six people to one property and "knock it out" then move on to the next job.

Large crews are fun to work with. They appeal to the social side of our nature, making it easy to build enthusiasm. Large crews make the members feel safe and secure. They feel as though there are enough of "us" to get it done.

Production managers like large crews because absenteeism does not cripple the production effort. Supervisors, especially non-producing supervisors, like a lot of people to look

often sized to fit the largest property. Crews seem to grow by themselves. Supervisors and production managers often add one member as "insurance" against anything going wrong.

Everyone likes large crews except the person directly responsible for profit. In some cases he or she does not know that large crews (more than three people) are the problem rather than the solution. They blame people, the pricing system, or the weather for the production crisis that is reducing profits.

Large crew myths

Increase in man-hour efficiency is only one of the many myths about large crews (see related article). Another popular myth is that large crews insure quality work. This was born in the belief that it takes more time to do quality work, and non-quality work is faster and saves time. Neither are true.

Quality is the result of a process that includes trained people operating the correct equipment according to a set procedure. In large crews where accountability is minimal, quality is often sacrificed.

Owners/managers like large crews on site. When you are behind schedule, the first solution is to add people. Desperate owners may even dictate specific crew sizes and threaten to withhold payment if these demands are not met. In most cases this "knock-it-out" behavior is an attempt to correct past performance problems and force the contractor back on schedule.

Separate, not equal

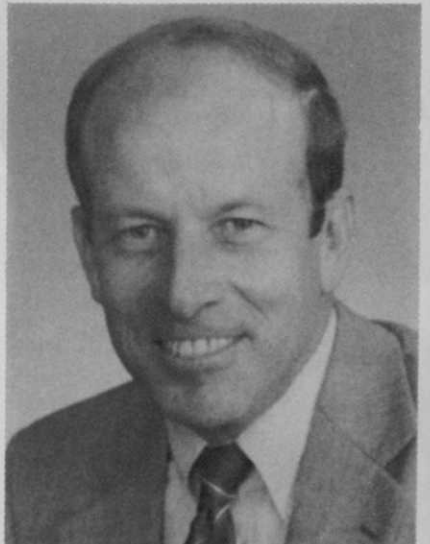
In this situation don't increase the crew: bring in a separate crew, divide the property into appropriate zones,

The best combination

Most large crew supervisors do a little bit of both and lose both productivity and quality. The combination that seems to work best is a full-time working foreman with one or perhaps two crew members trained to require very little supervision.

Divide large crews into smaller two- and three-man crews and teach them to function as separate work units. When large properties require more man-hours than a three-man crew can generate, divide the property into two zones and send two crews to produce the work.

Each two- or three-person crew should have production and quality goals for the day. Even though they may be in competition on the same property, they are evaluated them on that day's performance. **LM**



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